AMENDMENTS TO THE CLAIMS

Please cancel claims 1-10, 12-21, 23-29, 31-39, 41-61, 63-84 and 86-87 without prejudice or waiver to the underlying subject matter, and amend the remaining claims as follows:

1-10. **(Canceled)**

11. **(Currently Amended)** ~~The~~ A method ~~according to claim 2~~ for processing a plurality of orders for at least one instrument comprising:

combining a value-based trading order for at least one instrument with a share-based trading order for the at least one instrument to create a final trading order for the at least one instrument; and

converting the final trading order into a series of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices,

further comprising calculating the number of shares of the at least one instrument in the schedule of prices according to the following equations:

for a buy order:

$$S^* = (N_s^b - N_s^s) + \frac{N_\$^b}{P^*} - \frac{N_\$^s}{P_m}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

wherein:

$$\alpha = N_s^b,$$

$$\beta = N_\$^b - N_s^s P_m - N_\$^s - P_a\left(N_s^b - N_s^s - \frac{N_\$^s}{P_m}\right), \text{ and}$$

$$\gamma = -P_a N_\$^b;$$

for a sell order:

$$S^* = (N_s^b - N_s^s) + \frac{N_\$^b}{P_m} - \frac{N_\$^s}{P^*}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

where

$\alpha = -N_s^s$,

$\beta = -N_\$^s + N_s^b P_m + N_\$^b - P_b\left(-N_s^s + N_s^b + \dfrac{N_\$^b}{P_m}\right)$, and

$\gamma = P_b N_\$^s$;

wherein:

S^* = the number of shares of the at least one instrument to be bought or, if negative, sold at a particular price P*;

N_s^b = a number of shares of the at least one instrument to be bought in the plurality of share-based trading orders;

N_s^s = a number of shares of the at least one instrument to be sold in the plurality of share-based trading orders;

$N_\$^b$ = a dollar amount of the at least one instrument to be bought in the plurality of dollar-based trading orders; and

$N_\$^s$ = a dollar amount of the at least one instrument to be sold in the plurality of dollar-based trading orders.

12-21. **(Canceled)**

22. **(Currently Amended)** ~~The~~ A computer readable medium ~~of claim 13~~ storing instructions that, when executed by a processor, cause the processor to:

combine a value-based trading order for at least one instrument with a share-based trading order for the at least one instrument to create a final trading order for the at least one instrument; and

convert the final trading order into a series of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices,

the instructions further causing the processor to[[:]] calculate the number of shares of the at least one instrument in the schedule of prices according to the following equations:

for a buy order:

$$\boldsymbol{S^*} = (N_s^b - N_s^s) + \frac{N_\$^b}{P^*} - \frac{N_\$^s}{P_m}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

wherein:

$$\alpha = N_s^b,$$

$$\beta = N_\$^b - N_s^s P_m - N_\$^s - P_a\left(N_s^b - N_s^s - \frac{N_\$^s}{P_m}\right), \text{ and}$$

$$\gamma = -P_a N_\$^b;$$

for a sell order:

$$\boldsymbol{S^*} = (N_s^b - N_s^s) + \frac{N_\$^b}{P_m} - \frac{N_\$^s}{P^*}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

where

$$\alpha = -N_s^s,$$

$$\beta = -N_\$^s + N_s^b P_m + N_\$^b - P_b\left(-N_s^s + N_s^b + \frac{N_\$^b}{P_m}\right), \text{ and}$$

$$\gamma = P_b N_\$^s;$$

wherein:

S^* = the number of shares of the at least one instrument to be bought or, if negative, sold at a particular price P*;

N_s^b = a number of shares of the at least one instrument to be bought in the plurality of share-based trading orders;

N_s^s = a number of shares of the at least one instrument to be sold in the plurality of share-based trading orders;

$N_\$^b$ = a dollar amount of the at least one instrument to be bought in the plurality of dollar-based trading orders; and

$N_\$^s$ = a dollar amount of the at least one instrument to be sold in the plurality of dollar-based trading orders.

23-29. **(Canceled)**

30. **(Currently Amended)** ~~The~~ A method ~~according to claim 24~~ for processing a plurality of orders for at least one instrument comprising:

netting a plurality of value-based trading orders for at least one instrument against each other to create a net value-based trading order for the at least one instrument;

netting a plurality of share-based trading orders for the at least one instrument against each other to create a net share-based trading order for the at least one instrument; and

converting the net value-based trading order for the at least one instrument and the net share-based trading order for the at least one instrument into a series of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices,

further comprising calculating the number of shares of the at least one instrument in the schedule of prices according to the following equations:

(1) for a buy order:

$$S^* = (N_s^b - N_s^s) + \frac{N_\$^b}{P^*} - \frac{N_\$^s}{P_m}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

wherein:

$$\alpha = N_s^b,$$

$$\beta = N_\$^b - N_s^s P_m - N_\$^s - P_a\left(N_s^b - N_s^s - \frac{N_\$^s}{P_m}\right), \text{ and}$$

$$\gamma = -P_a N_\$^b;$$

(2) for a sell order:

$$\boldsymbol{S^*} = (N_s^b - N_s^s) + \frac{N_\$^b}{P_m} - \frac{N_\$^s}{P^*}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

where

$$\alpha = -N_s^s,$$

$$\beta = -N_\$^s + N_s^b P_m + N_\$^b - P_b\left(-N_s^s + N_s^b + \frac{N_\$^b}{P_m}\right), \text{ and}$$

$$\gamma = P_b N_\$^s;$$

wherein:

$\boldsymbol{S^*}$ = the number of shares of the at least one instrument to be bought or, if negative, sold at a particular price P*;

N_s^b = a number of shares of the at least one instrument to be bought in the plurality of share-based trading orders;

N_s^s = a number of shares of the at least one instrument to be sold in the plurality of share-based trading orders;

$N_{\$}^{b}$ = a dollar amount of the at least one instrument to be bought in the plurality of dollar-based trading orders; and

$N_{\$}^{s}$ = a dollar amount of the at least one instrument to be sold in the plurality of dollar-based trading orders.

31-39. **(Canceled)**

40. **(Currently Amended)** ~~The~~ An apparatus ~~according to claim 33~~ for executing trades in at least one instrument comprising:

a processor coupled to a memory containing instructions that when executed by the processor cause the processor to receive a plurality of trading orders, including a plurality of value-based trading orders and a plurality of share-based trading orders;

net a plurality of value-based trading orders for at least one instrument against each other to create a net value-based trading order for the at least one instrument;

net a plurality of share-based trading orders for the at least one instrument against each other to create a net share-based trading order for the at least one instrument; and

convert the net value-based trading order for the at least one instrument and the net share-based trading order for the at least one instrument into a series of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices; and

transmit the series of contingent orders for the at least one instrument to a third party market maker for execution,

wherein the instructions further cause the processor to calculate the number of shares of the at least one instrument in the schedule of prices according to the following equations:

(1) for a buy order:

$$S^{*} = (N_s^b - N_s^s) + \frac{N_{\$}^b}{P^*} - \frac{N_{\$}^s}{P_m}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

wherein:

$$\alpha = N_s^b,$$

$$\beta = N_\$^b - N_s^s P_m - N_\$^s - P_a\left(N_s^b - N_s^s - \frac{N_\$^s}{P_m}\right), \text{ and}$$

$$\gamma = -P_a N_\$^b;$$

(2) for a sell order:

$$S^* = (N_s^b - N_s^s) + \frac{N_\$^b}{P_m} - \frac{N_\$^s}{P^*}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

where

$$\alpha = -N_s^s,$$

$$\beta = -N_\$^s + N_s^b P_m + N_\$^b - P_b\left(-N_s^s + N_s^b + \frac{N_\$^b}{P_m}\right), \text{ and}$$

$$\gamma = P_b N_\$^s;$$

wherein:

S^* = the number of shares of the at least one instrument to be bought or, if negative, sold at a particular price P*;

N_s^b = a number of shares of the at least one instrument to be bought in the plurality of share-based trading orders;

N_s^s = a number of shares of the at least one instrument to be sold in the plurality of share-based trading orders;

$N_{\$}^{b}$ = a dollar amount of the at least one instrument to be bought in the plurality of dollar-based trading orders; and

$N_{\$}^{s}$ = a dollar amount of the at least one instrument to be sold in the plurality of dollar-based trading orders.

41-61. **(Canceled)**

62. **(Currently Amended)** ~~The~~ A method ~~according to claim 46~~ for trading a plurality of orders for at least one instrument comprising the steps of:

receiving a plurality of value-based orders for the at least one instrument from a first plurality of investors;

receiving a plurality of share-based orders for the at least one instrument from a second plurality of investors; and

executing one of a plurality of contingent orders in the at least one instrument, further comprising the steps of:

aggregating all share-based buy orders for the at least one instrument into a single share-based buy order for the at least one instrument; and

aggregating all share-based sell orders for the at least one instrument into a single share-based sell order for the at least one instrument, further comprising the step of:

netting the single share-based buy order for the at least one instrument against the single share-based sell order for at least one instrument to form a single share-based trading order for the at least one instrument,

further comprising the step of calculating the number of shares of the at least one instrument in the schedule of prices according to the following equations:

(1) for a buy order:

$$S^{*} = (N_s^b - N_s^s) + \frac{N_{\$}^b}{P^{*}} - \frac{N_{\$}^s}{P_m}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases} \pm\pm$$

wherein:

$$\alpha = N_s^b,$$

$$\beta = N_\$^b - N_s^s P_m - N_\$^s - P_a\left(N_s^b - N_s^s - \frac{N_\$^s}{P_m}\right), \text{ and}$$

$$\gamma = -P_a N_\$^b;$$

(2) for a sell order:

$$\boldsymbol{S^*} = (N_s^b - N_s^s) + \frac{N_\$^b}{P_m} - \frac{N_\$^s}{P^*}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

where

$$\alpha = -N_s^s,$$

$$\beta = -N_\$^s + N_s^b P_m + N_\$^b - P_b\left(-N_s^s + N_s^b + \frac{N_\$^b}{P_m}\right), \text{ and}$$

$$\gamma = P_b N_\$^s;$$

wherein:

$\boldsymbol{S^*}$ = the number of shares of the at least one instrument to be bought or, if negative, sold at a particular price P*;

N_s^b = a number of shares of the at least one instrument to be bought in the plurality of share-based trading orders;

N_s^s = a number of shares of the at least one instrument to be sold in the plurality of share-based trading orders;

$N_{\$}^{b}$ = a dollar amount of the at least one instrument to be bought in the plurality of dollar-based trading orders; and

$N_{\$}^{s}$ = a dollar amount of the at least one instrument to be sold in the plurality of dollar-based trading orders.

63-84. **(Canceled)**

85. **(Currently Amended)** ~~The~~ An apparatus ~~according to claim 79~~ for executing trades in at least one instrument comprising:

a central controller for coupling to a communications network via which are received by the central controller a plurality of trading orders, including a plurality of value-based trading orders and a plurality of share-based trading orders, said central controller:

aggregating and netting a plurality of value-based trading orders for at least one instrument against each other to create a single value-based trading order for the at least one instrument;

aggregating and netting a plurality of share-based trading orders for the at least one instrument against each other to create a single share-based trading order for the at least one instrument; and

converting the single value-based trading order for the at least one instrument and the single share-based trading order for the at least one instrument into a series of contingent orders for the at least one instrument specifying a number of shares of the at least one instrument to be traded at a schedule of prices; and

a database storing the plurality of value-based orders and the plurality of share-based orders and the series of contingent orders, wherein said central controller transmits the series of contingent orders for the at least one instrument to a third party market maker for execution,

wherein the central controller calculates the number of shares of the at least one instrument in the schedule of prices according to the following equations:

(1) for a buy order:

$$S^{*} = (N_s^b - N_s^s) + \frac{N_{\$}^b}{P^{*}} - \frac{N_{\$}^s}{P_m}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

wherein:

$$\alpha = N_s^b,$$

$$\beta = N_\$^b - N_s^s P_m - N_\$^s - P_a\left(N_s^b - N_s^s - \frac{N_\$^s}{P_m}\right), \text{ and}$$

$$\gamma = -P_a N_\$^b;$$

(2) for a sell order:

$$\boldsymbol{S}^* = (N_s^b - N_s^s) + \frac{N_\$^b}{P_m} - \frac{N_\$^s}{P^*}$$

$$P^* = \begin{cases} \dfrac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \text{ if } \alpha \neq 0 \\ \dfrac{\gamma}{\beta} \text{ if } \alpha = 0 \end{cases}$$

where

$$\alpha = -N_s^s,$$

$$\beta = -N_\$^s + N_s^b P_m + N_\$^b - P_b\left(-N_s^s + N_s^b + \frac{N_\$^b}{P_m}\right), \text{ and}$$

$$\gamma = P_b N_\$^s;$$

wherein:

$\boldsymbol{S}^*$ = the number of shares of the at least one instrument to be bought or, if negative, sold at a particular price P*;

N_s^b = a number of shares of the at least one instrument to be bought in the plurality of share-based trading orders;

N_s^s = a number of shares of the at least one instrument to be sold in the plurality of share-based trading orders;

$N_{\$}^{b}$ = a dollar amount of the at least one instrument to be bought in the plurality of dollar-based trading orders; and

$N_{\$}^{s}$ = a dollar amount of the at least one instrument to be sold in the plurality of dollar-based trading orders.

86-87. **(Canceled)**